

CLAIMS

We claim:

1. A peptide mimic of a conserved gonococcal epitope not found on human blood group antigens, wherein said peptide mimic is capable of inducing in a mammal an immune response against said conserved gonococcal epitope.
2. The peptide mimic according to claim 1, wherein the amino acid sequence of the peptide mimic comprises the sequence DE_GLF.
3. The peptide mimic according to claim 1, wherein the immune response is T-cell dependent.
4. The peptide mimic according to claim 1 or 2, wherein the amino acid sequence of the peptide mimic comprises cysteine residues at each terminus.
5. The peptide mimic according to claim 4, wherein a cyclic peptide is formed through disulfide bridges between the cysteine residues at each terminus of said sequence.
6. The peptide mimic according to claim 5, wherein the peptide mimic further comprises at least one tail for coupling to a second agent.
7. The peptide mimic according to claim 6, wherein the second agent is an adjuvant.

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8. The peptide mimic according to claim 1 or 2, wherein the peptide mimic further comprises an adjuvant or a carrier protein.
9. The peptide mimic according to claim 1 or 2, wherein the peptide mimic is part of a multiple antigen peptide.
10. The peptide mimic according to claim 1 or 2, wherein said peptide mimic competes with gonococcal LOS for binding to monoclonal antibody 2C7.
11. A peptide mimic which immunospecifically binds to an antibody that binds to an oligosaccharide epitope of *N. gonorrhoeae*, which oligosaccharide epitope is not present in human blood group antigens.
12. The peptide mimic according to claim 11, wherein the peptide mimic binds to monoclonal antibody 2C7.
13. The peptide mimic according to claim 11, wherein the peptide mimic binds to a monoclonal antibody produced by immunizing a mammal with an anti-idiotypic monoclonal antibody, or fragment thereof, produced by a hybridoma cell line having the characteristics of HB 11311 as deposited with the ATCC.
14. The peptide mimic according to claim 11, wherein the peptide mimic is part of a multiple antigen peptide.

15. A composition for immunizing against *N. gonorrhoeae* infection comprising an immunoprophylactically effective amount of a peptide mimic according to any one of claims 1-3, 5-7, 9 or 11-14.

16. A composition for immunizing against *N. gonorrhoeae* infection comprising an immunoprophylactically effective amount of a peptide mimic comprising the peptide sequence of SEQ ID NO:1.

17. A composition for immunizing against *N. gonorrhoeae* infection comprising an immunoprophylactically effective amount of a peptide mimic comprising the peptide sequence of SEQ ID NO:2.

18. A composition for immunizing against *N. gonorrhoeae* infection comprising an immunoprophylactically effective amount of a peptide mimic comprising the peptide sequence of SEQ ID NO:3.

19. A composition for immunizing against *N. gonorrhoeae* infection comprising an immunoprophylactically effective amount of a peptide mimic comprising the peptide sequence of SEQ ID NO:4.

20. A composition for immunizing against *N. gonorrhoeae* infection comprising an immunoprophylactically effective amount of a peptide mimic comprising the peptide sequence of SEQ ID NO:5.

21. A composition for immunizing against *N. gonorrhoeae* infection comprising an

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22. A composition for immunizing against *N. gonorrhoeae* infection comprising an immunoprophylactically effective amount of a peptide mimic comprising the peptide sequence of SEQ ID NO:7.

22. A composition for immunizing against *N. gonorrhoeae* infection comprising an immunoprophylactically effective amount of a peptide mimic comprising the peptide sequence of SEQ ID NO:7.

23. A composition for immunizing against *N. gonorrhoeae* infection comprising an immunoprophylactically effective amount of a peptide mimic comprising the peptide sequence of SEQ ID NO:10.

24. A method for immunizing a mammal against *N. gonorrhoeae* infection comprising the step of administering to said mammal an immunoprophylactically effective amount of a peptide mimic according to any one of claims 1-3 and a pharmaceutically acceptable carrier.

25. A method for immunizing a mammal against *N. gonorrhoeae* infection comprising the step of administering to said mammal an immunoprophylactically effective amount of a peptide mimic according to any one of claims 11-14 and a pharmaceutically acceptable carrier.

26. The peptide mimic according to claim 1 or 11, wherein the peptide mimic is coupled to a complement protein.

27. The peptide mimic according to claim 27,
wherein the peptide mimic is coupled to complement
protein C3d.

28. A method for immunizing a mammal against
N. gonorrhoeae infection comprising the step of
administering to said mammal an
immunoprophylactically effective amount of a peptide
mimic according to claim 27 and a pharmaceutically
acceptable carrier.

29. A composition for immunizing against
N. gonorrhoeae infection comprising an
immunoprophylactically effective amount of a peptide
mimic according to claim 27.

30. A method for increasing the antigenicity of a
peptide mimic according to claim 1 or 11 comprising
the step of coupling said peptide mimic to a
complement protein.

31. The method according to claim 30, wherein the
complement protein is C3d.

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